

Amendments to the Specification

In the Title

Please change the title of the application to:

-- Modulation Circuit Including A Feedback Loop With An Embedded Mapper --

In the Specification

Please replace paragraph 1 on page 1 with the following:

[0001] The present invention relates generally to improved apparatus and methods for mapping ~~pulse widths~~ pulses in ~~digital~~ modulation circuits, and includes particular applications of these circuits to digital modulators of a type useful in high fidelity audio processing.

Please replace paragraph 8 on page 2 with the following:

[0008] In an improved ~~high-fidelity digital~~ modulator, a mapping function is performed within a main feedback loop of the modulator, rather than after the feedback loop. ~~Pulse width modulation~~ mapping in such circuits generates a fairly large harmonic content ~~when cascaded with the a digital modulator circuit~~ and tends to dramatically change the shape of the noise floor ~~in the desired band, e.g. 0-40 kHz.~~ In contrast, the inventor has found that placing the mapping function within the high-gain ~~digital~~ modulator feedback loop tends to compensate for the non-linear features of the mapping function, thus reducing harmonic generation and simplifying the task of suppressing harmonic generation to an acceptable level. In addition to reducing harmonic generation, this arrangement simplifies feedback processing and the accumulation of feedback information within various integrators in the modulator circuit.